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PSYCHO STYRENE

The Journal of SCI-FI, Fantasy, & Horror Modelling

The Phantom Illuminated

Classic Galactica Showcase

Moebius Models Interviewd

ScratchBuilding The Elson

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Data Burst

By GeekBot

Welcome to the premiere issue of Psycho Styrene Modelling Magazine, The philosophy behind this publication is to fill in the gaps that are left by most of the print magazines that cater to modellers since the demise of Sci-Fi & Fantasy modeller as a monthly publication, and that this magazine should be a magazine for modellers made by modellers who love sci-fi and fantasy.

I'm hoping that we will be able to fill this publication with projects, for both the beginner and the more advanced modeller to try, hints and tips to help newbie modellers, as well as being a show case for your work. I am also hoping to see some out of the box builds/reviews to let other modellers know what great kits are out there currently, there will also be interviews with modellers, model companies and some pro model makers.

It also my hope that the editorial will not be me droning on each issue over what's in the issue or just what I think is happening in the model world, but will reflect and also contain the views of the readers, and what they have to say about the subject.

OK that's enough of me rambling on here, I hope you enjoy this issue and come back for more ☺ if you have any questions or would like to contribute to this publication, feel free to contact me here.

Front Cover By Brian Wilkinson & Darren Llewellyn
Rear Cover By Brian Wilkinson

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Out of the Box

The Phantom of the Opera

By Brian Wilkinson

This subject has been one of my must have's for a long time, and with the Polar lights kit having an organ. It had to be this one. Fist impressions on opening the box were good, with memories of old Aurora kits wafting back, the instructions were styled on the old Aurora ones and are pretty easy to follow. There was only one thing was missed off and that was the cloak tie. One good thing was the inclusion of the sheet music. All that you have to do is cut it out and paste it to the music stand (nice touch).

The figure itself went together with no problems using liquid cement. This helps to "fuse" the joints, which are then scraped with a scalpel then sanded one thing did emerge, The figure needs to be painted before the cloak is attached as painting all of the figure seemed impossible once the front folds were added.(Picture 1).

When attaching the cloak I noticed that it had some pretty badly placed seam lines. To fix these the seams were glued, filled and sanded; this was repeated a few times till I got a smooth joint. (Pictures 3/4/5).

With this done and the body painted I went to work on the rest of the phantom. The first problem I hit here, the hands didn't quite fit so instead of that "glued on look", (picture 9).I drilled out the arms to insert them (Picture 10).giving them a more natural look

After putting it off for a while it was time for the part I was dreading! The pinstripes on the trousers, after a bit of head scratching on how to mask them I went for electricians tape. The first step is to stick a length to a glass sheet and using a steel rule cut into thin strips, how thin is dependant on your eye sight.

After base coating the leg in dark gray the masking strips are peeled off and stuck to the leg starting from the front, working around to the back. It is important to try not to stretch the tape as it will spring off the plastic don't worry if it doesn't quite match, the cloak will hide it. (Pictue11). Once all are done and pressed down spray the legs black then peel off when touch dry. (Picture 12), the rest of the figure was then finished, with a white shirt with pale gray shading a dark gray waistcoat with Gold buttons and cufflinks.

A Red cravat with deep red shading.(picture 13) inside the cloak was airbrushed white with grey shading then glued to the figure.(Red if you prefer)All the front

folds were added filled then sanded. The figure was masked with paper towels and Play Doha (great for awkward shapes) then sprayed with Games workshop (GW) black.

The organ's lower sides needed styrene to fill out the inside before assembly (picture2), the organ itself went together very well and really looks the part. (Picture 7)

painting of the organ was going to be the tricky part, to achieve a timber grain effect, I used a light tan colour for the base coat, I followed this step with thin washes of various shades of brown with a worn out brush.

This is one time you want streaks have a look at some grained timber o get a feel for the looked we need a light touch is must here, and try not to overload your brush, drag the brush across the piece but don't do straight lines, and don't worry if they overlap in a few places. You might want to mask the side uprights and do the cross pieces first to replicate the way furniture is put together.

Lightly use matt varnish between coats so you won't smear each coat. Build up in layers till you have the effect you want. Finally I mixed up some clear brown (I used tamiya clear red and orange) and spray a few coats. This really is the key and gives it a much deeper and richer look. (Picture 8)

I was quite worried about doing the face as it doesn't have the same amount of detail as a resin model would have, but in for a penny.... First the head and hands were coated in Games Workshop dark flesh (picture15), then a flesh colour (raw sienna/burnt sienna/white mix) was lightly dry brushed over the skin, slowly building up the depth with out filling in the folds. The teeth

were brushed in GW unbleached titanium (Picture 16) lastly, I used pastel chalks to shade around the eyes and skin folds.

I mixed black with red to give a crimson colour which looked like burns from the acid/fire (Picture17) if you haven't used pastels before, buy some now. They are really useful for punching in shading in small areas and you have more control than an airbrush they're quite cheap, and should last you years. The eyes were based in an off white then brown pupil's added (Chaneys colour) with a black centre. A dot of white for the reflection then gloss coated and was done. (pcture18).

The music was cut from the instructions and pasted on to the stand and I replaced the plastic feather with a real one trimmed to size. The candelabra was dry brushed with GW shining gold then reds for the wax.(Picture 19), lastly the floor was mottled with various shades of grays and browns with a sponge to break up the

blocks(Picture 20). The figure was then fixed to the base with location points on his left foot. but I also used epoxy glued to both feet just to ensure a secure fit.

Overall I found this to be a really good kit to build and a nice change to resin, the only faults I found was having to build the cloak around the painted figure, and the lack of detail in the face but this last thing is more of a injection molding problem as it seems to turn up in a lot of kits. I can definitely recommend this kit if you can track it down. Nice build, nice size and nice on the shelf

ScratchBuild

The Elson

By Eric Moore

The start of this project was the clear ball that I used for the cockpit. I'd had it for a long while, so long that I don't remember what it was originally used for. Though it might've been one of those things that go in the washing machine – but it has hinges so I guess not. I had it in mind to make a sort of 2001 Discovery type craft with it but then over on the SFM:UK site, talk turned to the 70's illustrations of the likes of Chris Foss and Peter Elson. I've always loved them especially the unfeasibility of a lot of their designs.

So I'm playing with the ball and already decided it'd look neat to have a control chair in the middle of it giving the pilot a huge field of vision. All fired up on the Peter Elson idea I decided to go that way with it. So, I had the cockpit – what to use for the body? I knew it had to be something jarring and therefore a complete opposite to the ball, hard straight angles it is then. Had a root around in my bits box and came up with these wings. They're from the 1/24th scale Airfix Harrier kit and were incomplete as they're just the top half

Next I had to find a way of joining the ball to the wings and used the top cone from the Airfix Saturn V.

On the left here we have all three parts just Blu Tac'd together to see what it looks like.

I thought I'd start with the cockpit. I'd decided to have just a clear ball with a chair in it would look daft even for a 70's illustration. So came up with the idea of the rear hemisphere being made of metal and only the front one being clear. That made use of the hinged part then as well. I wanted the chair to be sticking out into the clear area though so as to give the pilot a really open expanse to view. I started with this piece from the Revell MIR Station. Onto the front of that I glued the chair and mounting arm from my old MPC Millennium Falcon Gunner Turret. Figured the mounting arm would make a good basis for the footplate. I zig zagged back and forth on this project not really following any sort of order or plan. (Good when you can do that).

I then had to decide what to do about the wings because as I said, they only consisted of the upper half so the top has loads of rivets and panel lines while the underside as you can see here, is pretty featureless. I had to address that especially the boring void in the middle. That was easily solved though by sticking on a part from the Star Wars Virago kit. That bulked it up nicely and I did the same sort of thing to the top by adding a cut-down section from a 1/35th AFV.

Back to the cockpit and here it is done. I added on some greeblies for the footplate then the whole thing was primed in white, decaled and pastelled. This is the inside of the rear hempispere. Again I've used the odd kit bit and some panel lines. I primed it in white, added a few decals that look like control surfaces or displays then a bit of pastelling. Next I tackled the detailing of the engine area. Here I've used a large nozzle from the Virago ship, a small nozzle from an X Wing and as many small kit bits as I could fit in there. I really wanted it to look busy so butted them right up against each other.

Here we have the ship with its final parts on. In total I've used military kit parts, Mecha parts, Lego, Games Workshop 40K stuff and EMA domes for the underside of the wings. Peter Elson, Chris Foss always seemed to have illogical bits sticking out their craft and I wanted to replicate that so I went with warty bumps. So to finish this stage of the model I gave it a coat of Halfords Grey Primer.

The next burning question was what colour to paint it. Well, I was going for a Thunderbird 2 style of green with yellow stripes but figured it'd look too military. So I had a trawl through my cans and just used a coat of Zircon Blue that I had left over from my SPV project. BIG mistake - what works on a SPV doesn't always translate to a ship. After that failed attempt I decided on using my can of "Volkswagen Mars Red", which is a very bright vibrant colour. That's okay though as I need it bright to begin with because the pastelling will tone it down. Start too dark and the pastelling either won't show or everything gets really muddy looking. After that's on its real glossy but that helps the decals that I'd be putting on as they stick a lot better to a gloss surface. I got a selection of decals from various kits then I choose the ones that achieved the look I was aiming for. Once done, the whole ship was sprayed in matt varnish.

The next part of the project involved getting creative with the pastel chalks in black and greys. I went over most of the craft pulling the pastel towards the rear to simulate streaks of dirt and grime. When I was finally happy with it the ship was given another coat of matt varnish the metalics were picked out and the cockpit seat glued in. The final thing to do was put the clear cockpit on.

With that done the project was finished.

I am very pleased with how the ship came together, with the added bonus of it being made pretty much totally from my bits box.

Out of the Box

Snap-Fix to Snap-Force

By Darren Llewellyn

Having never truly being a huge fan of the "Snap-Fix" style kits, yet the pocket model Star Wars kits did hold some appeal to me. I have to admit that what put me over the edge in purchasing this kit was that I needed to spend over £5 to use my card in my local model shop and I only need a Pair of tweezers, well that's what I Told my Girl Friend anyway and I'm sticking to it., so out I strolled with my Anakin's Jedi Star Fighter

It was thus with a great deal of trepidation and excitement that I opened the kit, memories flooding back of some of the really dodgy ones that I had built in my youth back in the late seventies and eighties. But I have to say that I was very pleasantly surprised with the quality of the kit and all bad memories of these kits faded away leaving me quiet happy to put this baby together.

On opening the box you find a small sheet of instructions that are laid out quit nicely and are very clear, having said that there are only about 5 steps, there is also a plastic bag containing 4 sprues, that are pre-painted and a clear one for the cock pit. The parts are nicely coloured and there are no real small or fiddly parts on it to hinder construction.

The model took almost no time to construct and there were no major problems, the whole job from start to finish took about 10 minuets, and that included the time to recover the parts I dropped under my bench. There were a few fit issues that cropped up while assembling the wings and the R2 unit, the wings to my mind were not a great fit to the body seemingly leaving a gap but it does match both sides of the main body so it doesn't look overly bad.

The Pocket Star Wars models are nicely done and have no real major draw backs to them and at just under £4 a kit they are great value for money, and come in at a nice compact size for those who don't want giant size Star Wars kits on their shelf. They pose no challenge to even the beginner in the modelling world but as a nice distraction from a more complex build or scratch build project the work well.

These kits are also a great little project to produce a nice complete model, when time is a factor as they do go together incredibly quickly. These would also in my opinion be a great way to get younger kids into the Sci-Fi modelling world, and I have noticed that a lot of toy stores are stocking them. All in all this is a nice kit that produces a reasonable model, and can give you a nice Star Wars fleet with out breaking the bank, Lets hope other Sci-Fi shows look at this and decide that a similar approach would suit them.

Interviews

Retro Resurrected

by Darren Llewellyn

Reissues and retro styled kits have been a great part in the sci-fi and
fantasy modelers bag since Polar lights began its reissue of some of the classic aurora kits but sadly no more.

2008 however seems to be the year of the retro kit! After Polar Lights left many of us Sci-Fi and Fantasy fans looking for more of the aurora and aurora style kits, we have after 3 long years of no aurora models being re-released we know have them once more thanks to the new model company Moebius Models. Situated in a small Florida town by a modeler, and from what we have seen Moebius looks like it will be producing some of the best kits for the modeler yet.

We spoke to Frank Winsupr about the company the kits and his views on the Sci-Fi and Fantasy model arena

Could you tell us who you are and where you from and what your role in the company is?
I am Frank Winspur, President of Moebius Models. We are in Glenwood, Florida, a small town between Daytona and Orlando.

Moebius is a very interesting name for a model company. Is there any significance to the name?
Some. Our first choices were taken, and a rearranged Moebius strip is similar to an oval. Just sounds kind of cool as well! Plus, I am a big fan of the artist that uses the same name.

Yeah I know of him he was very influential in France with the Heavy Metal comics, would you like to produce some kits based on his (Moebius') work?
That would be cool, but I'm not sure how they would sell. I know there were some pre-paints out there a few years back, but I don't recall how they did.

Could you tell us about the company and what you think is behind this new resurgence in the horror Sci-Fi model kit market?
We're just a small startup with only a couple of employees. We didn't purposely try to raid the old PL (Polar Lights) employees, but we have some similarity. Dave Metzner is with us doing all of the tough work. New product design and generally anything that has to do with fit, finish, and final look. Peter Collins is another ex-PL guy that works as our sales rep. They have been extremely helpful in the start of the company.

As far as resurgence, I think it was naturally bound to happen. Besides us, you have Monarch out of Canada. Hawk has been expanding their line significantly. I think there will always be interest in something non-traditional. Look at non-sports cards and their resurgence. People get bored easy, and this is a nice relaxing alternative to military and autos.

How long has the company been in operation?
1 year. 2008 will actually be our first full year in the market.

Having run a hobby type shop "The Doll and Hobby Shoppe" were you disappointed in the lack of kits available outside of military and automobile kits?
Always. That was why our biggest selection for the longest time was resin, vinyl, and anything import. There seemed to be a much more interesting selection. Nothing wrong with military or automobile, but how many times can you build a 57 Chevy? To me, not many. You can make small changes to customize, but it's the same static model. Now how many Predator kits have you seen? So many different, and there are always more coming out. And for the most part, they have something different to offer as far as look or pose. Much more interesting to me!

I agree with that view, they (military and auto Kits) have never appealed to me. Do you think the cost of most of the Sci-Fi & Fantasy kits out there has a lot to do with the limited number of modelers that the companies perceive purchase them on a regular basis?
I think that has a lot to do with it. I'm sure everyone wants a maximum return instantly, and with some

of the sci-fi And Fantasy it's just not possible. Especially with the costs incurred by the larger companies. No executives here to worry about paying a huge salary to!

You were one of the earliest distributors for the Polar Lights kits, were you surprised by the closure of them in 2004?
Very surprised. I had no idea. So many rumors, then the announcement. I knew it wouldn't be good for anyone in the hobby.

What do you think was the main cause of the failure?
A corporation taking over a small business. It rarely works well. RC2 had no real interest other than Johnny Lightning. It's too bad really.

What was the inspiration for you to start up and become the successor to the Polar Lights legacy?
The absence of any real Sci-Fi and figure kits in styrene. When RC2 started to discontinue the line, we were getting calls like crazy with customers trying to stock up. We knew it wasn't over by any means, just a lack of product.

Were you a fan of the aurora kits as a kid or were they something you came into at an older age through the second hand market?
I started with them early. I had some Uncles that got me interested early. My Dad built a few cars with me, but my Uncles loved the monsters! I did start re-buying many back in the 80's, so I have quite a collection tucked away.

What kind of aurora kits did you collect and make?
I did so many kits when I was a kid. My first was the Hulk, and then Spiderman. I still have most of mine from back then. Batman, Dick Tracy, all the Monster Scenes, most of the Prehistoric Scenes, the Dr Doolittle kits, Chitty Chitty Bang Bang. Too much stuff!

Did you consider going down the line of resin kits over IP ones?
We had done some resin in the past, and it's just too cost prohibitive for
the average modeler. Plus so many modelers are still intimidated by it. A styrene kit can be built by anyone with good results. Resin is a whole new ballgame for most, so it eliminates a great section of the market.

The Seaview kit seems like a monster of model , and incredibly detailed normally only seen in the resin kits with the mini Flying sub etc, what made you decide to release such a big kit, and will we be seeing other Voyage to the bottom of the sea Kits?

It was just begging to be done. The old Aurora kit really isn't that good, and the size is so small. With everything going big, we knew Seaview needed a supersize as well. And yes, there will be more Voyage coming!

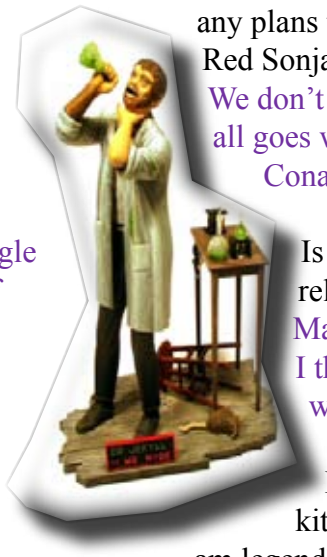
How big is the actual model of Seaview?
The prototype is the same size as the kit will be, 39 inches. It's a handful!

The captain action kit seems to be a bit of an odd choice as most people think of the action figure more than a kit, was this a purely nostalgic release?
Yes, limited and a bit more expensive. We knew it wouldn't be a huge seller by any means. I'm a big Captain Action fan, and when I was approached, I couldn't resist.
It has taken quite a bit longer to get out than we would have expected, but I'll be so glad when I can build one again!

Did you consider resizing it to fit in with the other aurora figure kits at 1/8 th scale.
The size is part of the image on this one. Basically the largest figure kit, other than Big Frankie, that Aurora did.

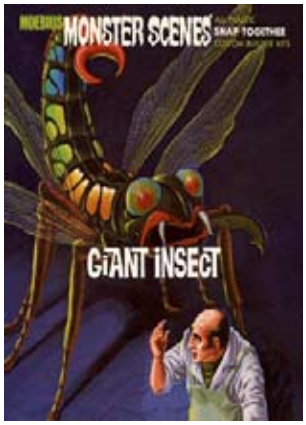
The voyager kit is a usual looking craft, where does it come from or was it an original design?
It is actually based on the old Saturday morning TV show here in the States. It didn't sell well for Aurora, so collector value has skyrocketed. It is a fun little kit to build though. Hopefully everyone that was restricted by price in the past can get one now.

Was that the show where they shrunk down to micro size?
Yes.



Have you any plans to expand beyond the horror sci-fi market with aurora reproductions such as the prehistoric line?
We thought it would be a great thing, Prehistoric Scenes, but the proposed Jungle Swamp received very little in the way of interest. We may try again with it next year.

Are there any plans to reissue some of the kits like the 4 main monsters and the creature that were issued by polar lights? And will we be seeing more of the "frightening Lightning" style glow in the dark kits?
Unfortunately all of that tooling is owned by Revell. They don't seem too interested in helping us with anything. I wouldn't think they see us as competition at this stage of the game, but I would have liked them to be a little friendlier when we approached them.



Will we be seeing anything like the monster scenes kits that aurora did back in the day?
We actually have a deal in place to reissue the Monster Scenes kits. Finding the time is the trick. We showed the Giant Insect at the iHobby show in Chicago this year (2007), and there wasn't much interest other than from hard-core Aurora fans. We're looking at a way to get it out that would cover costs, and make the licensor happy at the same time.

Have you thought about doing any type of customizing kit like aurora did to add extra scenery to your model kits?
Not really. They were 2 of the worst selling kits PL retooled. We have some ideas on it, but no real answers as to if we could do it and make it work.

With the release of the Conan kit next year have you any plans to produce more figures in this line like Red Sonja or Kull?
We don't have license for them at this time. If all goes well with Conan, we may put out a vinyl Conan in late 2008/early 2009.

Is there a likely hood that we may see the release of some of the old super hero kits?
Maybe. Working on something like that, but I think it will be a huge surprise if it goes the way I want!

Have you any plans to produce original kits for newer sci-fi movies for example "I am legend" , "Speed Racer", or the much talked about online remake of the "Creature from the black lagoon" or do you see Moebius keeping to the retro arena?
We will do some new things. Speed Racer would be cool, but I see licensing as a huge holdup. I would love to see a shot of the new Creature. We're actively looking at new properties, but just finding the right one to jump in with is tough. The retro stuff is proven, so it's a much easier thing to work with.

What would be your holy grail of kits to produce?
Hard for me to say, as I have a pretty large collection of old plastic to rummage through. I love the old MPC Schwinn kits, as well as the MPC Pirates and Haunted Mansion kits. I guess if there is one thing I'd like to have is the '66 Batmobile to produce. The things we could do with that…

Online there seems to have been a lot of talk of the decline of the model market particularly in the sci-fi fantasy market, has this been a concern to you, or did you think that it was dying because of the lack of regular IP kits at reasonable prices?
That is one of the problems. Nothing new for kits. Even with the last year of PL, unless you were a Trek builder, what was there? Captain America? I can't recall what else there was other than the Marvel supersize reissues. Nothing to buy translates into no interest in my opinion.

You seem to have come to the market place in a very quiet manner outside of the internet. Is this because of the number of modelers out there that are

into these retro kits? Or is it some other marketing reason?
Outside of the internet is a scary place to try and get word out. There are a few sources we would have loved to advertise in, but in terms of cost effectiveness it just doesn't work. We feel that at some point the advertising we do, the shows we will attend, and the distribution we have, will get the word out. There are a huge amount of modelers that spend an inordinate amount of their time online. It all just takes time. When the Addams House came out at PL, I never heard of it outside of FAO, and I thought I was well informed. In time, we'll get out there.

Would you mind telling the readers how you come to pick what kits are reissued and a brief insight into the process of creating the reissue kit?
Most of it is based on what we heard at D&H. We had a fairly large customer base at some point, and we kept our ears open to what the buyers were telling us they wanted. For a reissue, the process is pretty easy. Get a nice copy, send it to China. There are a few things that happen in between them receiving, and us getting nice new kits back, but I think you could write a book on that!

Do you think that so many of these retro style sci-fi and fantasy kits have come onto the market because there is a hole in the market left by the bigger companies that is ignoring the sci-fi modeler for a while now?
They don't see a market for the most part. Military and automobile modelers make a much larger and easier market, so they seem to stick with that. Even with PL, very little got into mass market stores. The executives see very little in it. It would be nice if at some point they got to be like Hollywood and looked to comics/Sci-Fi/fantasy for a market.

Many of these larger companies seem to be trying to fill this gap with big name sci-fi reissues, do you think this is good for the industry or do you think they are trying to make money off of a popular name?
It's good for the hobby in many ways. Hopefully it draws some new blood into the hobby. That is the problem though; anything they do is based solely on money. It has to be with the expenses they have. Like Revell with BSG. I'm glad they're going to be back out, but what about Galactica herself? What about new kits? I would love to have that license, as there is so much more that could be done with it than reissue the old kits.

Do you think the resurgence of the retro model market e.g.: new kits and reissues that are becoming available is a direct result of the high rate of trade in them on EBay or was this type of model kit a gap in the market that had been missed for too long?
EBay is always hard to gauge in my opinion. It's a different market. When the C57D came out, we had sold quite a few to our regular customers. One of my employees mentioned one day they were selling very frequently on there at $10 more than we sold them for. We started listing them. I think we sold around 50 of them on eBay, long after our sales had slowed to a crawl, And made more money. I think some customers automatically think if it's on eBay it's a better deal. In most ways, I do think that this segment of the market has been overlooked by the major companies out there.

Do you see the market has having changed from the bricks and mortar based stockists when you had your shop to a more online retailer based market?
It was changing back then. The average customer we had come through the door was shopping prices online before they ever came in. We discontinued trains and r/c kits because of it. The average customer for these items would come in hoping to see what they wanted to buy so they could compare ours, and then buy online. Price was the absolute object. The thing the customer always forgot was, they may need service at some point. It was always incredible to me the amount of customers that came in with something they bought online, and expected me to warranty it. Plastic kits were always good, as you couldn't buy it online, pay for shipping, and expect to save any money. Problem was a shrinking local market. At the end we were doing approximately 95% mail order ourselves!

Was there any doubt in your mind that this venture would be a success with the way polar lights seemed to finish over night, or do you think that was a problem with the way they (Polar Lights) handled the market?
I didn't have a lot of doubt in it, but naturally there is some. The problem at Polar Lights was the sale. Going from one that had released kits based on marketing towards fans, to one that markets to the mass market. The products we do have very little relevance in the mass. We had a feeling back

in 2004 that RC2 would drop the ball due to their corporate roots. Old PL was market savvy, RC2's version had no idea who their market was.

Are you seeing a lot of take up on the kits that you have released and announced?
Yes, things are going very well in terms of interest and order.

So are there any other kits that are on the drawing board for 08 that you could give us some hints towards?
I wish I could but we'll be announcing more in February. Everything is running slower than I'd like, so this year will see delays again. The production schedule is hard to control, and any small delay can turn into a big one quick. Some of what we have planned for late 2008 may spill into 2009, so it's best to keep it under wraps for now. But check out our My Space site for updates as time goes on

Finally do you think that there will be place for these types of kits for a long time to come? We're hoping! Unfortunately, the average modeler has been getting older and older. The youth of today have a much shorter attention span, and instant gratification is the norm. It would be great to have a wave of young modelers arrive, but I'm a little skeptical.

Issue 2 Out may 30th

Issue 2 of **Psycho Styrene** will see an influx of Tips, Interviews, Tutorials, Reviews, Readers Galleries, Kit Reviews and Scratch Builds. Some of the high lights will include:-

Scratch Build - A Ghostbusters proton pack for next to nothing using stuff most modelers will have laying around.

Model Photography - A nice tutorial on how to photograph models with a rear screen technique.

Weathering - Rob our hints and tips guru gives us an in depth look at how to give your hardware that lived in look

Mould Master - We get a nice guide by Pat Thomlinson on how to build a model to use as a master for molding.

An Interview - With Robert Holts from ACreation Models about what he hopes to see the genre become

Doug Purcell - Shows us how to construct a space age Pirate Blaster

50's Sci-Fi - We have very cool starship inspred by the art work of Chris Foss

Quick Tips

Here are just a few quick tips to help you on your modelling endeavours

Centring A Hole

Sometimes it can be hard to centre a hole accurately (for example when opening up a gun barrel) or the hole is so small you don't want to bother with a drill or pin vice. A Swan & Morton Number 7 scalpel handle with a number 11 blade fitted has the remarkable attribute that the blade point is exactly in line with the centreline of the handle. Grip the handle at its narrowest part between your thumb and fingers and twist. The tip will 'drill' a nice, precise dint that you can use to centre a drill accurately. Use a new blade with an undamaged tip.

Beating The 'Small Part Eater'

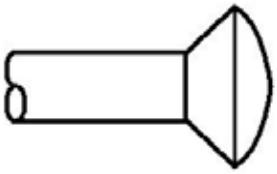
We've all done it – dropped that tiny, irreplaceable part on the floor only for it to disappear forever. You search for ages and even with a torch the part is lost. Cut a 10cm square from some nylon tights or stockings and, using an elastic band, cover the end of a vacuum cleaner hose. When you vacuum the area, the part will not be sucked up the tube. Who you nick the tights from is your problem.

Fibre-Optic Ends

It can be hard to cut plastic fibre-optics cleanly. This tip means you don't have to worry too much and it can improve the final look and light gathering.

First, score the outer sheath of the fibre by rolling it under your blade with a little downward pressure. Then stop and chop through the fibre. Lightly smooth the cut face with 800-grit (or finer) wet & dry paper (used wet).

Now comes the clever bit. Hold the end over a heat source for a few seconds – a soldering iron is best as it is a 'clean' heat. You will see the end bulge into what looks like a lens and this is exactly how it works. At the light source end, it will tend to gather even more light and at the output end, it looks more like a lamp or window than just a plain end as it increases the viewing angle.



Polish the lens with ultra-fine grit (chrysanthemum paper) or with polishing compound.
You may need to chamfer the edge of your hole to get the fibre to sit correctly. Also, remember to feed the fibre through any holes first, because the lens diameter will be a bit larger then the original fibre diameter. You can flatten the lens with further polishing if needed.

The thinner the fibre, the less time it will need over the heat source.

Another Tip For Fibre-Optics

Paint the outside of a fibre-optic with black (gloss or matt). This will cut down the chance of light-loss along its length.

Fixing Clear Parts

Polystyrene glue, solvents & cement can damage clear parts if you are not careful. Cyano-acrylates (*superglue*) is not at all recommended for clear parts as the vapour given off mists up the clear part.

One alternative is white glue (a.k.a. PVA glue). The bond will not be as strong, but there is no chance of misting, crazing or distorting the part. You can also use woodworking glue, which is chemically similar, but sets a bit stronger than standard PVA – just watch what colour it is because woodworking glue is often brownish.

Another alternative is clear epoxy or a window-film liquid such as Humbrol's *Clear-Fix*. Both of these tend to string so can be a bit harder to apply cleanly. However, the bonds with these will be much better.

Finally, Johnson's *Klear* (US name Future) can be used. Pour a tiny amount out and let it start to dry off. It will go quite thick and tacky. Apply it with a cotton-bud or a *microbrush*.

Cutting Plastic Fast

If you're using a motor tool (e.g. *Dremel*) with a circular saw attachment to make a fast cut you will find that it is really aggressive and melts the plastic easily. Try mounting the circular saw blade the other way around. This will reverse the direction and the blade will cut less aggressively.
]

Cheap Clamps

Wooden clothes pegs make great, cheap clamps. Apart from using them as-is you can saw off various corners to make them fit tighter spaces and to hold smaller parts. Also, you can dismantle them and reassemble them with the wooden parts back-to-back giving you another variant.

Readers Gallery

Ken Skiffington

The starship is made from the polar lights 1/350 enterprise
I changed it into a Destroyer/Scout Class by cutting off the neck that holds the saucer section from the main body and gluing it on to the nacelle,
I had only the original decals that came with the kit to use,
so i just change around the numbers and took prise from word enterprise NCC 1170 U.S.S. Prise

Chris Dobs

The model is the Monsters In Motion Gunstar resin model kit. The kit took me more than a year to build with a very long break because I just got tired of working on it. Colors are mainly Testors Model Master Acrylics but I also used some Tamiya Acrylics. All colors are straight from the bottle. Decals are from JT Graphics and where bought separately from the kit,. The Gunstar is a Great design and has always been one of my favorites, this model does have some accuracy issues but is currently the only kit available for this subject. Recommended for only experienced Modelers.

Brian Wilkinson

It is an Amt kit and was basically built from the box without mounting the droid. He was repositioned and glued into a sitting position, leaning against his STAP.Sunglasses are made of card, WD4000 oil can/drink and ipod were made from scrap. The magazine was down loaded images from the net. The base was quickly put together from MDF with plaster soil and scenic grass.

Petar Belic

This is the Fantastic Plastic resin 1/72 scale B-Wing. It took 4 weeks to build. And a number of modifications were made to the original kit to make it look like one of the two filming miniatures. These included custom decals, re-sculpting the pilot and rebuilding the canopy, as well as rebuilding all guns out of brass and plastic. The model was finished with Airbrushed Tamiya acrylics, and an oil wash, matt dull-coat and pastels.

Jim Vasilatos

Showcase

Galactica Refit

By Kenneth Skiffingtom

For me the overwhelming desire to build a model of the Galactica began with the first time I saw her on the big screen flying across the frame. Since that day I all ways wanted a large scale model of it on my shelf, although actual construction of the model took over 20 years for me to start, I always knew that I would begin the mammoth task of constructing her one day.

When eventually I did begin to build the Galactica, I decided that the only way to go was build a large scale version of the ship, using monogram's Battlestar Galactica kit as a starting point, I decided to construct my version of the model at scale that would make it closer to that of the studio miniatures. I decided that a good size model would be three times the size of the original monogram kit; this scale would make the finished project over 4 feet long.

Before I started construction of the model I decided that I needed to do some research on it, my first port of call was the ever trusty internet. My main requirement from this research was to see if I could find some reasonable photos of the ship, especially any close ups I could get to help me later with the detailing the model would give me a head start. After getting what I thought was enough info, and unable any longer to resist the urge to build something, I started to get together a list the materials I needed.

The majority of the model was constructed using 4x8 foot sheets of .060 thickness styrene, several tubes of glue, a good sharp knife and a straight edge. A good supply of sugary snacks is always a help. I broke the model down into 5 different sections, the Front section, Middle section, Engine section and the

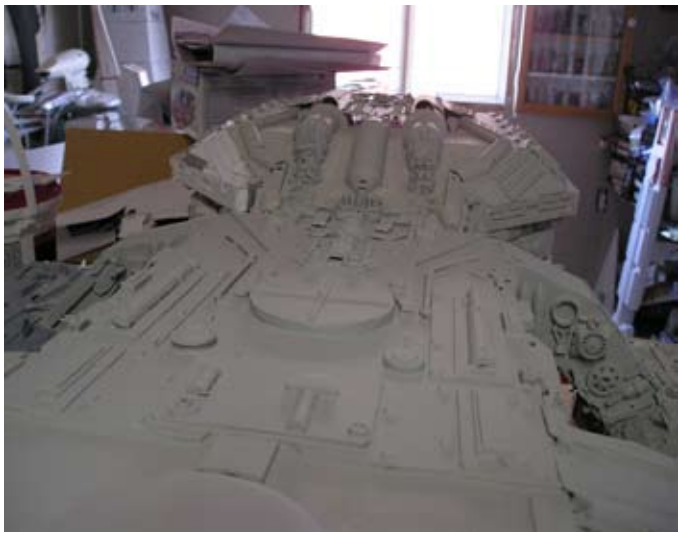
two landing bays.

I decided to start with the front section of the ship, this proved to be the most difficult part of the model to do mainly due to the complex angles and the recesses in the sides that form the distinctive shave of a Battlestar, isn't it always the same, to construct the front section I started by drawing out the patterns I needed on to the sheet styrene, and then it was a relatively simple matter of cutting out the parts I needed, and gluing them together. This process was then repeated for the remaining 4 sections of the model; after I had completed construction on all the sections the only stage left in the basic construction was to glue them together. So far the model seemed to turn out nice but looked a little naked with out all of her detailing.

Now for detailing this can often be the most time consuming and fiddly part of the construction. I decided given the scale of this model that I would go down the same root as the studio

model did and kit bash the details. I used a lot of different types of model kits that I had, including parts from cars, trucks, jet planes, battleships and even booster rockets from the space shuttle in all it took over 20 kits to scavenge all the parts I need to detail this beauty.

The last step then was to take this patchwork construction and make it look like the Battlestar that had captured me all those years ago I began the painting by making sure that the model was clean and ready to take the paint, as paint jobs go this was not that bad as the studio model was basically flat grey. I painted it with Model Masters Light grey paint.



All told the model took me about 6 months to complete from start to finish, but the time was well worth it to see her sitting on my bench all completed and ready to take on the Cylons.

Techniques

Resin kits – are they worth it?

By Peter Belic

The transition from opening a box of a shiny polystyrene kit to a box of not-so shiny resin kit can be a shock to some. There's often no sprue to be clipped but rather huge pouring funnels, oddly placed vents and tiny parts seemingly forever bonded with much bigger slabs of resin. Some of your skills in assembling injection molded kits will work well, while others will not translate to resin.
In order to understand some of the problems you might encounter with resin kit assembly it's probably a good idea to understand how they are manufactured. Most of these types of kits could be termed 'garage kit' as they are often made in relatively small runs - often in someone's garage – this is because the resin kit process is much cheaper to set up than that of injection polystyrene kits.
Usually the sculpted item will be duplicated by an RTV (Room Temperature Vulcanization) rubber mold. This mold is then used to pour resin into. After the resin has catalyzed the liquid resin turns into solid block and the kit part is popped out to be added to the pile. During this process a lot can go wrong and part and parcel of buying a resin kit is being prepared to put up with some of those problems.

The first thing you need to be aware of in assembly is that preparation of a new resin kit is extremely important for finishing later on. Most resin kits will come with a coat of release agent on the pieces. This agent could be a tiny sheen of Vaseline or atomized wax sprayed on in order to make the resin cast pop out of the mould easily and It also sustains the life of the mold. What it means for you though is that if you don't wash it off your paint wont stick well or may flake off later.
Put your resin pieces if possible into a mesh sieve and place this in an old ice-cream container. You're going to be leaving them in liquid overnight, and the sieve will make sure you don't lose any of those smaller pieces later on. You'll need an old toothbrush (you won't be using it for anything else) to give the pieces a good scrub down with a degreasing agent. What that agent is depends on you and what's available in your area, Some people are happy with dishwashing liquid but just to be on the safe side I scrub them with plenty of cheap degreasing fluid (available from your local car shop) you need to make sure to get into all the nooks and crannies I then leave the resin in the degreaser to soak overnight. Once this is done I liberally wash them down with a mix of dishwashing liquid and water before putting them aside to dry for another few hours. The resin should now be clean and free of anything that would prevent paint from sticking to it.

At this point it's probably a good time for a very critical inspection of kit. Some resin kits might have parts that are bent, for polystyrene kit builders this is a big problem but with resin it's actually quite easy to fix. Run the piece under very hot water and bend the piece back to shape carefully. You can't do that to polystyrene!
Depending on your kit, this might be the right time to remove the parts from their runners or pour stubs, if you are new to resin this can often seem quiet intimidating. Resin can vary quite dramatically between manufacturers and can also be very brittle you will need to remove each kit piece from its pouring stub or runner carefully. The best way to do this is with a jewelers' saw or an Exacto saw blade to avoid placing too much stress on the part. Don't

try and ‘carve’ it or snap it off as you’re likely to end up wrecking the piece. Those sprue cutters you use for polystyrene will not be useful for your resin kit so don’t be tempted to use them. Try doing a ‘dry fit’ of the parts at this point to see what resin still needs to be removed; Blu-tac can help here. By now you’re probably noticing a lack of alignment pins – don’t panic, we will get to that later. After you’ve seen what resin still needs to be removed you will then need to smooth the trimming areas down, this can be done roughly with a file at first and then by moving through various grades of sandpaper to get the finest finish possible. Resin dust is toxic and its suggested that you ‘wet sand’ – not only will this preserve your sandpaper and equipment but it will reduce resin dust and make clean-up a bit easier too.

Next the real bane of resin kits – air bubbles. You will rarely get a resin kit without some air bubbles in the parts. There are two main types of air bubbles, the first type are the ones close to the surface, these are a problem as they can affect the quality of the finish this is one of the main problems of ‘garage kit’ production. They can be eliminated in the production phase with more expensive equipment but some air bubbles are inevitable.

Then there are the tiny pinhole air bubbles which occur in more of a ’froth’ like texture. These are more of a problem and are often the result of bad mixing or contamination of the resin in the casting process. Each of them has a slightly different approach in fixing.

The larger air bubbles can be filled easily with finishing putty. My favorite is to use a two-part epoxy putty like Aves or Milliput, mash the putty into the hole with a toothpick then use water to smooth the surface of the filler out, this way you can avoid the need for sanding. The frothy ‘pinhole’ air bubbles are much more difficult to deal with as they are too small for conventional putty. You may have to enlarging them by drilling them out so that you can fix them like the larger ones. One method involves tapping talcum powder over the area then sweeping as much of it away as possible. Hopefully some will have lodged into the pinholes in which case you put a tiny drop of very runny Cyanoacrylate glue. The gel variety won’t work as the glue needs to soak into the talcum powder. In some cases the area affected might be large enough as to warrant a piece of sheet styrene or to build it back up with putty. Each case will be different and the challenge for the modeler is to find the best way to approach the filling issue. Once the filling is done you may need to smooth down again with a session of fine wet sanding.

Alignment pins are something that are sorely lacking on a lot of resin kits. It’s a very bad idea just to glue larger resin pieces together because the glued area needs reinforcement. We will tackle these two issues in one go.

Let’s take two asymmetrical cylindrical parts to be joined end to end for example. We need to ensure alignment of the parts and we also need to reinforce the join. Start by dry fitting the two pieces with a small bit of blu-tack or sticky removable putty this is to get the alignment correct. Then draw four lines around the diameter of the join seam being sure to overlap both pieces so that alignment later will be easier. The idea is that when you separate them you have four marks spaced around the diameter of each cylinder. Put the pieces together again and match the marks to each other – it should be a perfect fit again. You now join up these marks on the face of each piece with a ruler giving you

a cross and at the point that your lines meet you have a common center on both pieces. You'll then need some brass rod to act as reinforcement. First drill at your 'X-marks the spot' point on both pieces then liberally coat your brass rod in a two-part epoxy glue like Araldite and insert into the drilled out hole. This is now your alignment pin which also acts to reinforce an otherwise weak join. Congratulations, you've just done your first 'pinning' of a resin kit. Some people like superglue for assembling resin kits and you can certainly glue resin pieces that way but

for better strength and internal gap filling for larger items and issues like those alignment pins two part epoxy glues do a better job for long-term strength. Once it's assembled I like to give the piece one final wash to remove dust, fingerprints and whatever other junk it's picked up in the course of assembly before giving it a coat of primer.
The primer is quite important. You want something with plenty of chemical 'bite', I've heard that one of the best is sandable automotive primer but I can never be bothered to prep and clean my airbrush for the lowly task of priming. In my experience, 'Mr. Surfacer' seems less than satisfactory, however Gunze do make a 'Mr. Resin Primer' which might explain a few things. Tamiya Fine White and Grey Primers in the spray can produce a surprisingly good adhesion. In fact I've tried to remove them from resin with various oven-cleaning sprays without success! From here your modeling skills come back

into play to finish the model kit. Detailing, painting – really, it's just like a polystyrene kit at this point.

There are a few things for you to consider when displaying your finished piece. It was mentioned earlier that if you've received a bent kit piece you can put it back into shape by running it under hot water. Unfortunately this has a downside. If you put a heavy 'winged' model in the sunlight after a few weeks you may notice a horrible droop on those wings. Thin or elongated sections of resin under stress or simply because they are heavy may deform after time under their own will. You have been warned!

It's definitely a bit more work when you're facing a resin kit but the results can certainly surpass an injection molded kit and you'll soon find ways to streamline your preparation times. With some care, attention and as always safety first you will soon lose any apprehension for resin kits. You're about to open the door to an amazing array of subjects that you'd never have had access to otherwise.
Enjoy the journey ahead!

Model Blueprinting Basics: How to Create Drawings and Patterns for Your Next Project

By Charles Adams

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If you've ever tried to build something from scratch, you probably already know how important it can be to have a good set of plans or working drawings to use as a starting point. At a minimum, you need to know how to read your blueprints in order to ensure your project is a success. But, what if you want to build something custom or tackle a project of your own design? In that case, you'll also need to know how to create your own plans.

Blueprints not only illustrate the concept of a design, they also provide vital construction information. This makes such drawings central to the scratch-building process. In fact, you might think of blueprinting as the first step to getting your project out of the idea stage and on the road to becoming a reality.

Thanks to new technologies, having the ability to read and draw plans can also open the door to all sorts of modeling possibilities. Today, modelers can use drawings not only to help them make patterns for structural parts, but also to create custom decals and dry transfers, artwork for photo-etched details, and even outlines for parts to be cut with a plotter, laser cutter, or computer-controlled milling machine. It all starts with a good set of drawings.

If you're lucky, plans for the subject you want to build may already be available. If that's the case, you'll need to reproduce these drawings in a suitable scale and then find a way to extract some needed measurements and patterns from them. Chances are, however, any existing blueprints you can find won't contain all the information you need to build an accurate model of your chosen subject. That means more work will probably be required before you can dive in and start building.

What happens if you can't find **any** existing drawings? In that case, you'll need to create your own from scratch before you can start building. If you've never tried your hand at blueprinting before, this prospect may seem daunting. It doesn't have to be. This article will introduce some basics that can help you get started.

Creating blueprints is both an art and a science. It can be argued, though, that it is more science than art since many standards have been established for laying out a proper set of plans. Any discussion of this subject will involve what is known as **drafting**. This is simply the process of creating drawings (also known as "blueprints," "plans," or "working drawings") that describe an object to be constructed.

Basic drafting techniques are what make it possible to create accurate plans and construction patterns for all sorts of projects. These same techniques are also needed to extract useful construction information from existing drawings. Engineers, architects, and industrial designers have long used the standards and principles of drafting to create blueprints. Modelers can also employ some of these same practices to create useful plans for their projects.

[**Sidebar**]

The purpose of this article is to provide a brief orientation on the subject of creating plans and blueprints for modeling projects. For a more in-depth study of these concepts, the author has written an entire book on how drafting works and what modelers can do with these techniques. This in-depth guide – the *Model Design & Blueprinting Handbook, Volume 1* – is currently the only publication on this subject written specifically for modelers. With the concepts outlined in this book, you can get up to speed on everything you need to know in order to design and build your own projects from scratch. For more information,

visit www.ModelersNotebook.com.

To create working drawings of any subject, start by preparing a combination of top, bottom, side, front, and rear views. Known as **multi-view dr***awing*, this first step is the foundation of the blueprinting process. Having the ability to make such drawings is vital for anyone who wishes to build models from scratch using their own custom plans.

All objects shown in multi-view drawings are said to be "flattened." That's because these drawings do not include any **visual perspective**. The formal term to describe such views is **orthographic**. This simply means "without visual perspective."

[**Sidebar**]
In order to be useful, working drawings must depict objects at their true size and shape. Any time you look at an object, however, there is visual perspective. This causes *distortion* of the subject being viewed or photographed. When objects appear distorted due to perspective, they cannot be reliably measured. As a result, visual perspective in blueprints cannot be permitted.

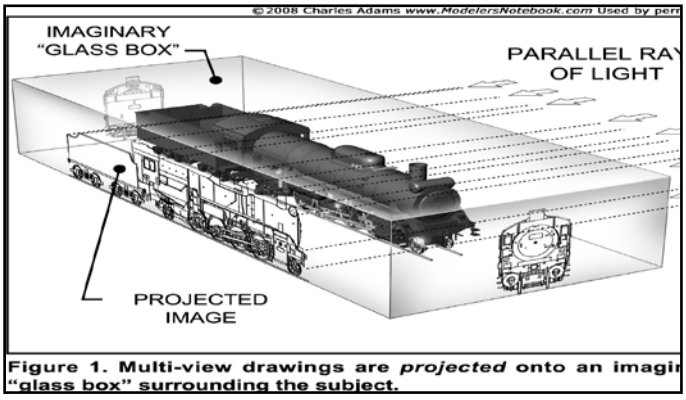


Figure 1. Multi-view drawings are *projected* onto an imagi "glass box" surrounding the subject.

To understand how this process works, take a look at the vintage locomotive shown in **Figure 1**. This subject is placed inside an imaginary "glass box" that encloses it on all sides. Now, imagine a light source aimed at the subject in such a way that the rays of light are all perfectly parallel to each other. In that case, all shadows cast by the subject would be exactly the same size as the features on the subject. The result would be the elimination of any distortion caused by visual perspective.

If this seems confusing, try to imagine a projector lamp aimed at the subject's left side. This would cause a shadow to be cast on the opposite face of the glass box (in this case, the side of the box nearest the right side of our locomotive). If you were to place a piece of paper over the glass box in this location and trace the resulting shadow, you would end up with an outline of the right side of the locomotive. In academic circles, this is known as a **projected view** because of the way it is created. In common usage, this type of drawing is simply referred to as a **plan view**.

This process can be taken one step further by imagining the subject is semi-transparent. In that case, light would pass not only around the locomotive but also through it. As a result, outlines of all relevant details would appear in the projected view. You could then trace everything needed to describe the locomotive when viewed from its right side.

Since the imaginary glass box in this example has six sides, similar views can be projected in the same manner to obtain six **principal plan views**. The process of creating these views is known as **orthographic projection**. This powerful concept forms the foundation of the art/science of drafting.

Creating multiple views of your subject is only the tip of the iceberg when it comes to the usefulness of this technique. The process of orthographic projection (or, simply, projection) has another, even more powerful application. If you have two different plan views of your subject, you can use projection to fill in or "graphically calculate" a missing view.

The usefulness of this technique is far reaching. To see just one example, look at the cab of our example locomotive shown in **Figure 2**. Let's suppose you had some published blueprints showing the right side plan view of this locomotive. That would be an excellent starting point. Unfortunately, the side view alone does not provide sufficient information to recreate the structure of the locomotive. For this reason, at least one other view is also needed to begin mapping out this subject.

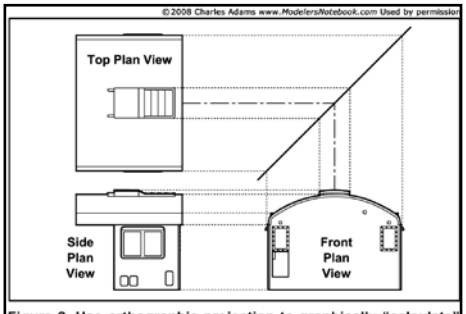


Figure 2. Use orthographic projection to graphically "calculate" missing information.

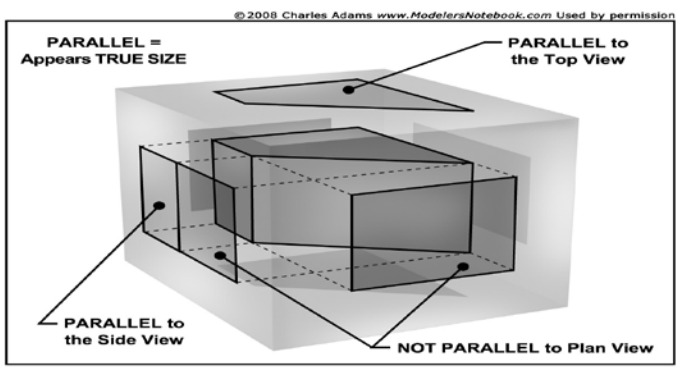
Let's say you have both a side view and a top view with which to work, but not a front view. How can you determine what the cab looks like in the front view? Using projection, information in both the top and side views can be combined to draw the missing front (or rear) view. This process of "fill in the blanks" makes it possible to create working drawings for just about any subject, one step at a time. The key is to arrange the views in a specific manner so information about the details can be transferred from one view to another. This is the true power of orthographic projection.

You have now seen how multi-view drawings can be created for a subject using an imaginary "glass box" and the technique of orthographic projection. With this method, it becomes possible to generate up to six principle plan views of your subject. But, that is only the beginning.

Keep in mind, plan views don't often include all the information you need to build a complete model of your subject. That's because many details – such as cross sections – typically aren't visible in these views. What's more, you'll also need actual-size templates or patterns that show the correct shape of various parts you want to build from scratch.

To map out these kinds of details, you can use some slightly more advanced drafting techniques to extract vital information from the plan views. Before you can do that, however, you'll need to know how to **read** your blueprints accurately. Doing this requires a firm understanding of something called "parallelism."

Here are the basics: Any line or surface on your subject that is **parallel** with a particular plan view will appear **true size** and can therefore be measured in that view. On the other hand, if a line or surface is **not** parallel with a plan view (that is, if it is aligned at some angle relative to the view) it will not appear true size and should not be measured in that view. An example of this important concept is shown in **Figure 3**.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PARALLEL = Appears TRUE SIZE
PARALLEL to the Top View
PARALLEL to the Side View
NOT PARALLEL to Plan View

Figure 3. Features that are parallel with any principal plan view will appear true size in that view.

Once you have the knack of determining what can and can't be measured from the available information, the next step is finding ways to map out any details that don't appear true size in the plan views. For example, you may need to create an alternative or **auxiliary view** that shows the true size and shape of a feature. This can be one of the more challenging exercises when making blueprints. Once mastered, however, it is a skill that can prove extremely valuable when making construction patterns for your projects.

[**Sidebar**]
Advanced drafting techniques make it possible to find the true shape of virtually any important detail. This ability can be the key to successfully designing the structure of your model. Examples include creating *auxiliary views* and using a technique known as *revolution*. You can also create templates for various parts that can be assembled from flat panels. (These are called *developments*.) With advanced drafting techniques, you can even plot *transitions* and *intersections* between parts. All these methods are discussed in great detail in the author's book.

Once you know how to make your own plans and construction patterns, new levels of capability and productivity are just around the corner. The advent of easily accessible digital "power tools" is now changing the entire scratch-building landscape for modelers. For example, 2D drawings and patterns can be used to help you build 3D computer model parts and structures more quickly and easily than ever before. With computer-controlled milling machines and other processes now widely available, it is possible to start your project with a simple drawing, translate it into a 3D computer model, and then turn that into a finished physical model.

Keep in mind, many of the concepts and techniques you have seen here can also help you create your own custom decals, dry transfers, 3D texture maps, photo-etched parts, and patterns for computer-controlled milling or laser machining. How's that for new frontiers! When you combine the ability to make your own drawings and patterns with new technologies, the sky's the limit.

The concepts presented here can make it possible for you to start bringing your own model design ideas to life. If some of what you've just read sounds overly technical, don't worry. The art of blueprinting is fairly easy to master. All it takes is a little practice along with the right tools and a good bit of determination.

Keep in mind, the same basic techniques apply whether you want to use a pencil and paper or an advanced computer program. Whichever method you choose, the fundamentals will be the same. So, are you ready to take the next step?

Remember, every project starts with a good set of plans. If you'd like to learn more about how to make your own blueprints, check out the **Model Design & Blueprinting Handbook, Volume 1,** available from *www.ModelersNotebook.com*. This book was written by a modeler specifically for other modelers and hobbyists. It will walk you through both basic and advanced design concepts form start to finish, with numerous illustrated examples.

With the techniques covered in this book, you can learn how to create the drawings and patterns you need to build your own projects – whether you're constructing a real model that you can touch and feel or a "virtual" 3D model that exists only inside the computer. In fact, you'll find the material in this book is "foundational" to the model design process, regardless of which type of modeling you prefer. With the skills you'll learn reading **Model Design & Blueprinting Handbook**, you'll soon be ready to get your project ideas out of the idea stage and on the road to becoming a reality.

About the Author

Charles Adams is a freelance artist, designer, and writer with nearly 20 years' experience in both drafting and technical illustration. As a longtime hobbyist and modeling enthusiast, he launched the popular science fiction modeling website, *StarshipBuilder.com*, in 1997 and, more recently, *AirshipModeler.com* in 2006. He has written for *FineScale Modeler Magazine* and has acted as a technical editor on several books.

Charles is currently writing a series of books for *ModelersNotebook.com*. He enjoys creating technical illustrations and working on a variety of model-related projects.

Build Project

Display Bases

By Darren Llewellyn

I don't know about the rest of you but I hate it when you get a figure that comes without a base. It makes figures so hard to display in my opinion and with some of these commercially available plinths being so dear, I began to think there must be a better way to make a nice base. So it is with this in mind I thought that I would share this great idea for making bases to display your figures on.

The idea came to me while I was in my local Games Workshop store, while looking at the figures it dawned on me what great flag stones the square bases on these figures would make and coming in various sizes you could even create some nice patterned floors. Since just explaining this would mean that the article was over before you began reading it I thought this may be a good opportunity to look at how to make a one part silicone RTV mould and some basics of resin casting.

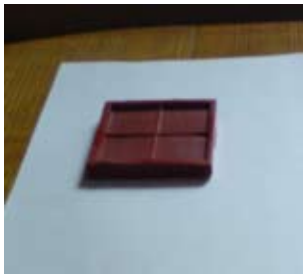
Although there are several different ways that you could assemble the squares or hexagonal bases to form a floor, I decided that for the purpose of this exercise that a basic grid of 4 square bases would be the easiest to go through so that we could concentrate on the process of making multiples of them in resin. To begin with we need to make sure we have everything we need to produce the finished piece.

Once we have our stuff ready we can begin to create the box that we will make the mould in. the first step to do this is to put the 4 bases together to measure them making sure they are the right size(injection mouldings can vary from time to time) then cut out a piece of sheet styrene 10mm by 10mm larger than the bases , this is so we will have lip around the mould thick enough not to break but thin enough as not to waste thr RTV compound. Next we have to mark a 5mm border around the edge of the sheet we have just cut out, then glue the bases inside the border we have just created.

At this point I usually like to "grout" the bases using modelling clay, this is entirely optional, once done we can proceed to making the walls of the moulding box for this project a wall height of 10mm is a good size. Cut out two lengths of sheet styrene 10mm wide, by the length of the base you have just glued the basses to, now glue these into place. The next step is then cut another two lengths at 10 mm wide and as long as the base plus the thickness of the other walls. Once these two walls are glued to the base and the other two walls we know have a box ready to make the mould.

Ok now this is were we get to the part that has to be done very carefully and precisely as the instructions lay out or we will have a goopy mess rather than a nice mould. Unfortunately I have never found a sure fire method of calculating how much compond is needed for a mould, for this project I used about 40 grams of silicon, once the silicone is mixed up it is time to make the mould. I usually paint a thin layer over the part to be moulded to get a nice good surface, Then pour the rest over it untill the mould box is full, once poured It is advisable to tap the mould to encourage air bubbles to rise to the surface.

Once the mould has dryed and cured we can progress on to the next stage the casting The choice of resin is up to you I normally use alumilite for this type of work as it is easy to mix (1:1) is fairly oudourless and sets up very quickly



(about 5 mins) althought this does have the side effect that it must be poured very quickly as it only has an open time of about 90 seconds which means that everything needs to be in place before you start mixing.

Ok so with everything ready to go mix up equal

parts of A& B Resins in the sperate measuring cups. The next step is to pour them into the mixing cup and mix togeather quickly for about 20 to 30 seconds, then pour into the mould,

I like to keep a lolly stick handy to level the surface out once poured, once the mould is full skim over the top with the lolly stick, give the sides a quick tap again to help get some of the air out and stand back and watch the material set.

Once set the resin base can be removed from the mould and ready to paint. The base coat that I use for painting the base to resemble a stone floor is xcol the from Games Workshops Citadel paints line, I give the resin a liberal coat of the base colour, once dry I then give it a wash with a darker shade of grey, this helps to pick out the "depths" in the stone and add some definition to the base, the last stage of painting is to highlight it, The easiest way I have found to do this is to "drybrush" the base with a light shade of grey, I would advise using an old brush for dry brushing as it can ruin your good brushes.

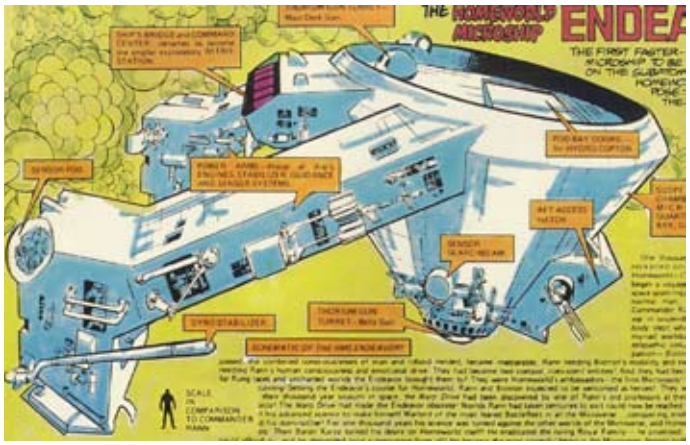
For me the last step is to add a little detail to the base by adding some floock powder once again from the Games Workshop, they do a nice green/yellow mix that makes a good lichen/moss effect, I tend to add this quiet liberally as too much will ruin the look, I tend to keep it to the joints or the edges of the base.

And there it is a quick and easy way to make a base for your figure or a nice floor for your diorama not exactly the greatest of modeling ideas but I usefull one for us figure builders

ScratchBuild

The Micronauts Endeavor! An unusual subject indeed!

by John Michals



In this two part article John Michals looks at building the spaceship from the classic Micronauts comic.

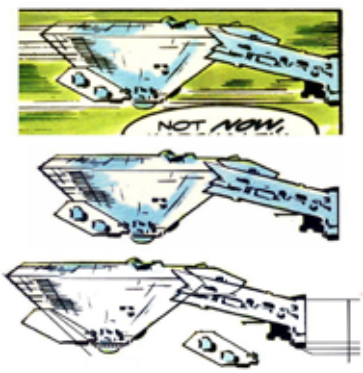
Most of you if not all of you are looking at this and asking what the heck is it? Where does it come from? Who would want to build that? I guess I should start at the beginning.

The Micronauts and their ship, The Endeavor are from an American sci-fi comic book published by MARVEL Comics in the late 1970's. The comic was based on a toy line that MEGO toys had brought to American shores
in 1976 but originally came from Takara, a Japanese toy company. In the storyline the Endeavor is the heroes' ship but in reality no toy or model of the Endeavor has ever existed. It was a product of the comic book writer Bill Mantlo and artist Michael Golden. Takara or MEGO never made one it wasn't even planned as a model. This is very unusual due to MEGO's close relationship with MARVEL comics. Mego always was
on the lookout for new toys to spring on the public but it seems they never considered building the Endeavor. The ship has remained a two dimensional concept for these past 3 decades and largely unknown to the majority of science fiction modelers'.

As a child I was impressed with the design. The first issue I bought, issue #4, had an illustration on the last page proclaiming: The Homeworld Microship Endeavor! This was a pin-up, a beauty shot of the ship and though it was odd looking-I was hooked. The influences seem to be more Star Wars/Battlestar Galactica than Star Trek. Although the over-all shape is clean and well defined there is a lot of piping detail all over the ship. It gives the appearance of being kit-bashed.

How do I build this? I never had a clue. At a young age I taped some oak-tag cardboard together in a cone shape and made a feeble re-creation but it was far from what the Endeavor should be. I also did try a cleaned ricotta cheese container-which looked awful and thankfully has not survived to this day. Over the years I had looked at many readily available items to use the main hull: pottery planters, butter tub containers, ice containers, flower vases, traffic cones, hat-box manufacturers, lampshade makers and I even tried cardboard tube companies. There was just no item in existence to convey the shape of the ship's main hull. It would have to be entirely created from scratch.

First thing was to nail down reasonable blue-prints of the subject. Looking over the comic books I limited myself to the first 12 issues and any cover art done by the original artist, Michael Golden. After he left the book other artists interpreted what he had drawn differently and many inconsistencies crept in. As I looked over Mr. Golden's art I saw many of his inconsistencies as well. Luckily I discovered several drawings in the comics which



would make excellent starting points for a set of construction plans.

I discovered at least 3 good side view illustrations the artist drew in the series. One of them is an exact side-profile and is the basis for the plans I drew up. Finding this drawing was a great help but I was far from set. I was also lucky to find another drawing of the ship from a nearly perfect rear view. Using some tricks in Adobe Photoshop I created a better, more symmetrical rear-view of the ship. I rotated the drawing in Photoshop until it was level and merely copied the port side engine pylon and re-pasted it in a position which was exactly opposite of the starboard one. You can check the placement is correct by selecting the whole ship from the illustration and pasting it over what you have just made, then flip it horizontally and lower the brush tool to less that %100 opacity. As your pasted image becomes more transparent you can line the pasted image up with the underlying one and see that everything on both sides match.

Just because the drawing looks good from the side and the rear nearly a perfect in both cases, it may not look good at another angle. The cone is a simple shape and looks fine but the problem was that I had to plot out the other pieces which attach to the main cone hull. Based on these views of the ship you can determine the proportions of the rest of the ship but it still takes some tweaking. Let me also say at this point that drawing and re-drawing the subject would be a colossal chore if not for using a computer. I'd probably never even build a test model because without using a computer to copy, paste, stretch, shrink, flip and rotate it, would just drive me crazy and I would never have come up with a basic set of plans of the ship. All throughout my childhood I never came up with the solutions I did when I had a computer with a good photo/drawing program at my disposal. Perhaps this is short-sightedness or just laziness on my part but the computer has been a tremendous help.

Looking at it the bridge area is too short. While I don't have a better side view or even a viable top view other illustrations indicate the bridge should extend further forward. Also the engines/landing legs are cut off in the side view frame. I have to take a guess where they terminate. From the rear view illustration I can figure out how far apart the engine pylons are and how close to the edge they will be. I can also take a guess as to what their thickness is. I can also tell how wide the bridge is because it must fit in between the engines. If they look out of place I'll have to adjust them and that will also change their angle on the original side view. On many occasions I had to go back and change the length of the engines and that in turn changed the angle at which they declined. So while we have many drawings from the comic book to guide us the matching up of these two drawings, after some modification actually bring the design into focus.

Once I had lengthened the bridge area I used that as a measuring stick to figure out how long the engines would extend from the cone hull and where the landing pylons would begin. As I experimented with the design in the computer I found the most attractive length was to have the landing pylons begin at 2 & 1/2 lengths forward of the bridge. Knowing where they end then I must plot the rectangular landing pylons to the ground level so they act as landing gear as well as depicted in the comic book. Between the lower gun turret and the two landing legs so that the ship will sit upright when at rest. There are a lot of choices

to be made and no matter what subject you choose to build you will have to decide what elements best represent the subject and still provide a viable 3D model. Once you have a set of plans finalized you can begin construction.

Many people would probably set about constructing a model using styrene, (or plasticard as it's called in the U.K.), but I was more comfortable using foam board. This may seem an unusual choice because the center-piece to this design is a round cone. How are you going to build that you may well ask? I'll get around to explaining that very soon. I find building with foam board very easy. I can make sturdy structures with it very quickly without much internal support. I can assemble something very quickly and see if it looks right. If it doesn't I try to see where I went wrong and I cut and assemble a new piece in a matter of seconds. I usually use hot glue to put the foam together. Sometimes if you plan ahead you don't have to use any glue. I could always do another model in styrene down the road.

So print out or photocopy your drawings and make templates. Try and save a set of originals so you can repeat construction in case you make a mistake. If you are computer savvy you could get some heavy weight card stock and print your drawings right on it or do it the old fashioned way and paste-up the drawing on some light cardboard I use oak-tag as it is called in the states as it is available at every corner stationary store. Once you have cut it out you trace the outline onto the foam board (or styrene if you want to make it out of plastic instead) and cut out the pieces. To create the cone hull I divided the cone into two equal halves and cut out triangular ribs. Since the hull is a cone and has curvature I decided I would cut out circles for the top and middle areas. I plotted the ribs out in a circular fashion and then cut tabs and slots where they would insert into the circles. If you control the cuts carefully the triangular ribs will have some tension when assembled. If that works you don't need to glue these pieces for the model to hold its shape.

Next we turn to the Bridge Module and the Engine/ Landing leg pylons. Take your template and trace it onto the foam board. For these attachments we have to do some additional work. They must mate with the hull. What I decided to do was extend them and to have a portion which would insert into the hull. For the engine pylons I had it diverge from the direction of the main pylon at a nearly 45 degree angle. I felt that this would be necessary because you want these appendages to be sturdy and hold their positions. If I just cut them to meet the outer cone hull I don't think they would be strong enough to hold up. In addition the ends of these pylons also have landing feet. If the ship will be resting on these for long stretches of time they also have to be strong to hold up the rest of the model as well. When tracing the engines I omitted the actual landing feet. These will be attached last and while we will try to stay faithful to the plans by doing them separately and at the end it allows us to alter these pieces in case we have misjudged their size. If the plans turn out to have been wrong we can compensate and change the landing feet so the model will stand upright.

Part Two next Issue

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